

Release notes for ENDF/B Development n-042_Mo_098
evaluation

ENDF
B-VII.dev

April 26, 2017

- checkr Warnings:

1. A previous error halted parsing of the current section
MAT=4243, MF= 1, MT=451 (1): Parsing stopped

```
ERROR(S) FOUND IN MAT=4243, MF= 1, MT=451
SECTION CANNOT BE CHECKED FROM SEQUENCE NUMBER      376 TO      444
```

2. Generic warning message
MAT=4243, MF= 3, MT=107 (1): Warning

```
ERROR(S) FOUND IN MAT=4243, MF= 3, MT=107
WARNING(S)      IN MAT=4243, MF= 3, MT=203
```

3. Generic warning message
MAT=4243, MF= 3, MT=203 (1): Warning

```
ERROR(S) FOUND IN MAT=4243, MF= 3, MT=203
WARNING(S)      IN MAT=4243, MF= 3, MT=204
```

4. Generic warning message
MAT=4243, MF= 3, MT=204 (1): Warning

```
ERROR(S) FOUND IN MAT=4243, MF= 3, MT=204
WARNING(S)      IN MAT=4243, MF= 3, MT=205
```

5. Generic warning message
MAT=4243, MF= 3, MT=205 (1): Warning

```
ERROR(S) FOUND IN MAT=4243, MF= 3, MT=205
WARNING(S)      IN MAT=4243, MF= 3, MT=207
```

6. Generic warning message
MAT=4243, MF= 6, MT= 91 (1): Warning

```
ERROR(S) FOUND IN MAT=4243, MF= 6, MT= 91
WARNING(S)      IN MAT=4243, MF= 6, MT=203
```

7. Generic warning message
MAT=4243, MF= 6, MT=203 (1): Warning

```
ERROR(S) FOUND IN MAT=4243, MF= 6, MT=203
WARNING(S)      IN MAT=4243, MF= 6, MT=204
```

8. Generic warning message
MAT=4243, MF= 6, MT=204 (1): Warning

```
ERROR(S) FOUND IN MAT=4243, MF= 6, MT=204
WARNING(S)      IN MAT=4243, MF= 6, MT=205
```

9. Generic warning message
MAT=4243, MF= 6, MT=205 (1): Warning

```
ERROR(S) FOUND IN MAT=4243, MF= 6, MT=205
WARNING(S)      IN MAT=4243, MF= 6, MT=207
```

- checkr Errors:

1. A variable is outside the allowed ENDF range
MAT=4243, MF= 1, MT=451 (0): Variable range

```

ERROR(S) FOUND IN MAT=4243, MF= 1, MT=451
MOD =      1 OUT OF RANGE      0 -      0      RECORD NUMBER      376

```

2. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4243, MF= 2, MT=151 (0): Directory (b)

```

ERROR(S) FOUND IN MAT=4243, MF= 2, MT=151
SECTION 2/151 NOT IN DIRECTORY      RECORD NUMBER      446

```

3. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4243, MF= 3, MT= 1 (0): Directory (b)

```

ERROR(S) FOUND IN MAT=4243, MF= 3, MT= 1
SECTION 3/ 1 NOT IN DIRECTORY      RECORD NUMBER      662

```

4. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4243, MF= 3, MT= 2 (0): Directory (b)

```

ERROR(S) FOUND IN MAT=4243, MF= 3, MT= 2
SECTION 3/ 2 NOT IN DIRECTORY      RECORD NUMBER      830

```

5. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4243, MF= 3, MT= 4 (0): Directory (b)

```

ERROR(S) FOUND IN MAT=4243, MF= 3, MT= 4
SECTION 3/ 4 NOT IN DIRECTORY      RECORD NUMBER      998

```

6. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4243, MF= 3, MT= 16 (0): Directory (b)

```

ERROR(S) FOUND IN MAT=4243, MF= 3, MT= 16
SECTION 3/ 16 NOT IN DIRECTORY      RECORD NUMBER     1022

```

7. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4243, MF= 3, MT= 17 (0): Directory (b)

```

ERROR(S) FOUND IN MAT=4243, MF= 3, MT= 17
SECTION 3/ 17 NOT IN DIRECTORY      RECORD NUMBER     1031

```

8. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4243, MF= 3, MT= 22 (0): Directory (b)

```

ERROR(S) FOUND IN MAT=4243, MF= 3, MT= 22
SECTION 3/ 22 NOT IN DIRECTORY      RECORD NUMBER     1037

```

9. Missing a section in directory so your directory is messed up. This error will break everything else

$MAT=4243$, $MF=3$, $MT=28$ (0): Directory (b)

ERROR(S) FOUND IN MAT=4243, MF= 3, MT= 28
SECTION 3/ 28 NOT IN DIRECTORY RECORD NUMBER 1047

10. Missing a section in directory so your directory is messed up. This error will break everything else

$MAT=4243$, $MF=3$, $MT=51$ (0): Directory (b)

ERROR(S) FOUND IN MAT=4243, MF= 3, MT= 51
SECTION 3/ 51 NOT IN DIRECTORY RECORD NUMBER 1055

11. Missing a section in directory so your directory is messed up. This error will break everything else

$MAT=4243$, $MF=3$, $MT=52$ (0): Directory (b)

ERROR(S) FOUND IN MAT=4243, MF= 3, MT= 52
SECTION 3/ 52 NOT IN DIRECTORY RECORD NUMBER 1068

12. Missing a section in directory so your directory is messed up. This error will break everything else

$MAT=4243$, $MF=3$, $MT=53$ (0): Directory (b)

ERROR(S) FOUND IN MAT=4243, MF= 3, MT= 53
SECTION 3/ 53 NOT IN DIRECTORY RECORD NUMBER 1084

13. Missing a section in directory so your directory is messed up. This error will break everything else

$MAT=4243$, $MF=3$, $MT=54$ (0): Directory (b)

ERROR(S) FOUND IN MAT=4243, MF= 3, MT= 54
SECTION 3/ 54 NOT IN DIRECTORY RECORD NUMBER 1095

14. Missing a section in directory so your directory is messed up. This error will break everything else

$MAT=4243$, $MF=3$, $MT=55$ (0): Directory (b)

ERROR(S) FOUND IN MAT=4243, MF= 3, MT= 55
SECTION 3/ 55 NOT IN DIRECTORY RECORD NUMBER 1106

15. Missing a section in directory so your directory is messed up. This error will break everything else

$MAT=4243$, $MF=3$, $MT=56$ (0): Directory (b)

ERROR(S) FOUND IN MAT=4243, MF= 3, MT= 56
SECTION 3/ 56 NOT IN DIRECTORY RECORD NUMBER 1121

16. Missing a section in directory so your directory is messed up. This error will break everything else

$MAT=4243$, $MF=3$, $MT=57$ (0): Directory (b)

ERROR(S) FOUND IN MAT=4243, MF= 3, MT= 57
SECTION 3/ 57 NOT IN DIRECTORY RECORD NUMBER 1136

17. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4243, MF= 3, MT= 58 (0): Directory (b)

ERROR(S) FOUND IN MAT=4243, MF= 3, MT= 58
SECTION 3/ 58 NOT IN DIRECTORY RECORD NUMBER 1150

18. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4243, MF= 3, MT= 59 (0): Directory (b)

ERROR(S) FOUND IN MAT=4243, MF= 3, MT= 59
SECTION 3/ 59 NOT IN DIRECTORY RECORD NUMBER 1164

19. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4243, MF= 3, MT= 60 (0): Directory (b)

ERROR(S) FOUND IN MAT=4243, MF= 3, MT= 60
SECTION 3/ 60 NOT IN DIRECTORY RECORD NUMBER 1177

20. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4243, MF= 3, MT= 61 (0): Directory (b)

ERROR(S) FOUND IN MAT=4243, MF= 3, MT= 61
SECTION 3/ 61 NOT IN DIRECTORY RECORD NUMBER 1190

21. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4243, MF= 3, MT= 62 (0): Directory (b)

ERROR(S) FOUND IN MAT=4243, MF= 3, MT= 62
SECTION 3/ 62 NOT IN DIRECTORY RECORD NUMBER 1203

22. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4243, MF= 3, MT= 63 (0): Directory (b)

ERROR(S) FOUND IN MAT=4243, MF= 3, MT= 63
SECTION 3/ 63 NOT IN DIRECTORY RECORD NUMBER 1215

23. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4243, MF= 3, MT= 64 (0): Directory (b)

ERROR(S) FOUND IN MAT=4243, MF= 3, MT= 64
SECTION 3/ 64 NOT IN DIRECTORY RECORD NUMBER 1227

24. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4243, MF= 3, MT= 91 (0): Directory (b)

ERROR(S) FOUND IN MAT=4243, MF= 3, MT= 91
SECTION 3/ 91 NOT IN DIRECTORY RECORD NUMBER 1238

25. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4243, MF= 3, MT=102 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4243, MF= 3, MT=102
SECTION 3/102 NOT IN DIRECTORY          RECORD NUMBER 1249
```

26. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4243, MF= 3, MT=103 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4243, MF= 3, MT=103
SECTION 3/103 NOT IN DIRECTORY          RECORD NUMBER 1273
```

27. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4243, MF= 3, MT=104 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4243, MF= 3, MT=104
SECTION 3/104 NOT IN DIRECTORY          RECORD NUMBER 1287
```

28. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4243, MF= 3, MT=105 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4243, MF= 3, MT=105
SECTION 3/105 NOT IN DIRECTORY          RECORD NUMBER 1299
```

29. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4243, MF= 3, MT=107 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4243, MF= 3, MT=107
SECTION 3/107 NOT IN DIRECTORY          RECORD NUMBER 1310
```

30. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4243, MF= 3, MT=203 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4243, MF= 3, MT=203
SECTION 3/203 NOT IN DIRECTORY          RECORD NUMBER 1326
```

31. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4243, MF= 3, MT=204 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4243, MF= 3, MT=204
SECTION 3/204 NOT IN DIRECTORY          RECORD NUMBER 1377
```

32. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4243, MF= 3, MT=205 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4243, MF= 3, MT=205
SECTION 3/205 NOT IN DIRECTORY          RECORD NUMBER 1389
```

33. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4243, MF= 3, MT=207 (0): Directory (b)
- ERROR(S) FOUND IN MAT=4243, MF= 3, MT=207
SECTION 3/207 NOT IN DIRECTORY RECORD NUMBER 1400
34. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4243, MF= 4, MT= 2 (0): Directory (b)
- ERROR(S) FOUND IN MAT=4243, MF= 4, MT= 2
SECTION 4/ 2 NOT IN DIRECTORY RECORD NUMBER 1450
35. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4243, MF= 4, MT= 51 (0): Directory (b)
- ERROR(S) FOUND IN MAT=4243, MF= 4, MT= 51
SECTION 4/ 51 NOT IN DIRECTORY RECORD NUMBER 1644
36. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4243, MF= 4, MT= 52 (0): Directory (b)
- ERROR(S) FOUND IN MAT=4243, MF= 4, MT= 52
SECTION 4/ 52 NOT IN DIRECTORY RECORD NUMBER 1676
37. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4243, MF= 4, MT= 53 (0): Directory (b)
- ERROR(S) FOUND IN MAT=4243, MF= 4, MT= 53
SECTION 4/ 53 NOT IN DIRECTORY RECORD NUMBER 1773
38. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4243, MF= 4, MT= 54 (0): Directory (b)
- ERROR(S) FOUND IN MAT=4243, MF= 4, MT= 54
SECTION 4/ 54 NOT IN DIRECTORY RECORD NUMBER 1802
39. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4243, MF= 4, MT= 55 (0): Directory (b)
- ERROR(S) FOUND IN MAT=4243, MF= 4, MT= 55
SECTION 4/ 55 NOT IN DIRECTORY RECORD NUMBER 1831
40. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4243, MF= 4, MT= 56 (0): Directory (b)
- ERROR(S) FOUND IN MAT=4243, MF= 4, MT= 56
SECTION 4/ 56 NOT IN DIRECTORY RECORD NUMBER 1860

41. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4243$, $MF=4$, $MT=57$ (0): *Directory (b)*
- | | |
|---|--------------------|
| ERROR(S) FOUND IN $MAT=4243$, $MF=4$, $MT=57$ | |
| SECTION 4/ 57 NOT IN DIRECTORY | RECORD NUMBER 1889 |
42. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4243$, $MF=4$, $MT=58$ (0): *Directory (b)*
- | | |
|---|--------------------|
| ERROR(S) FOUND IN $MAT=4243$, $MF=4$, $MT=58$ | |
| SECTION 4/ 58 NOT IN DIRECTORY | RECORD NUMBER 1918 |
43. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4243$, $MF=4$, $MT=59$ (0): *Directory (b)*
- | | |
|---|--------------------|
| ERROR(S) FOUND IN $MAT=4243$, $MF=4$, $MT=59$ | |
| SECTION 4/ 59 NOT IN DIRECTORY | RECORD NUMBER 1992 |
44. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4243$, $MF=4$, $MT=60$ (0): *Directory (b)*
- | | |
|---|--------------------|
| ERROR(S) FOUND IN $MAT=4243$, $MF=4$, $MT=60$ | |
| SECTION 4/ 60 NOT IN DIRECTORY | RECORD NUMBER 2021 |
45. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4243$, $MF=4$, $MT=61$ (0): *Directory (b)*
- | | |
|---|--------------------|
| ERROR(S) FOUND IN $MAT=4243$, $MF=4$, $MT=61$ | |
| SECTION 4/ 61 NOT IN DIRECTORY | RECORD NUMBER 2050 |
46. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4243$, $MF=4$, $MT=62$ (0): *Directory (b)*
- | | |
|---|--------------------|
| ERROR(S) FOUND IN $MAT=4243$, $MF=4$, $MT=62$ | |
| SECTION 4/ 62 NOT IN DIRECTORY | RECORD NUMBER 2079 |
47. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4243$, $MF=4$, $MT=63$ (0): *Directory (b)*
- | | |
|---|--------------------|
| ERROR(S) FOUND IN $MAT=4243$, $MF=4$, $MT=63$ | |
| SECTION 4/ 63 NOT IN DIRECTORY | RECORD NUMBER 2108 |
48. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4243$, $MF=4$, $MT=64$ (0): *Directory (b)*
- | | |
|---|--------------------|
| ERROR(S) FOUND IN $MAT=4243$, $MF=4$, $MT=64$ | |
| SECTION 4/ 64 NOT IN DIRECTORY | RECORD NUMBER 2185 |

49. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4243$, $MF= 6$, $MT= 16$ (0): *Directory (b)*
- | | |
|---|--------------------|
| ERROR(S) FOUND IN $MAT=4243$, $MF= 6$, $MT= 16$ | |
| SECTION 6/ 16 NOT IN DIRECTORY | RECORD NUMBER 2215 |
50. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4243$, $MF= 6$, $MT= 17$ (0): *Directory (b)*
- | | |
|---|--------------------|
| ERROR(S) FOUND IN $MAT=4243$, $MF= 6$, $MT= 17$ | |
| SECTION 6/ 17 NOT IN DIRECTORY | RECORD NUMBER 2762 |
51. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4243$, $MF= 6$, $MT= 22$ (0): *Directory (b)*
- | | |
|---|--------------------|
| ERROR(S) FOUND IN $MAT=4243$, $MF= 6$, $MT= 22$ | |
| SECTION 6/ 22 NOT IN DIRECTORY | RECORD NUMBER 2951 |
52. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4243$, $MF= 6$, $MT= 28$ (0): *Directory (b)*
- | | |
|---|--------------------|
| ERROR(S) FOUND IN $MAT=4243$, $MF= 6$, $MT= 28$ | |
| SECTION 6/ 28 NOT IN DIRECTORY | RECORD NUMBER 3697 |
53. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4243$, $MF= 6$, $MT= 91$ (0): *Directory (b)*
- | | |
|---|--------------------|
| ERROR(S) FOUND IN $MAT=4243$, $MF= 6$, $MT= 91$ | |
| SECTION 6/ 91 NOT IN DIRECTORY | RECORD NUMBER 4148 |
54. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4243$, $MF= 6$, $MT=203$ (0): *Directory (b)*
- | | |
|---|--------------------|
| ERROR(S) FOUND IN $MAT=4243$, $MF= 6$, $MT=203$ | |
| SECTION 6/203 NOT IN DIRECTORY | RECORD NUMBER 5177 |
55. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4243$, $MF= 6$, $MT=204$ (0): *Directory (b)*
- | | |
|---|--------------------|
| ERROR(S) FOUND IN $MAT=4243$, $MF= 6$, $MT=204$ | |
| SECTION 6/204 NOT IN DIRECTORY | RECORD NUMBER 5478 |
56. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4243$, $MF= 6$, $MT=205$ (0): *Directory (b)*
- | | |
|---|--------------------|
| ERROR(S) FOUND IN $MAT=4243$, $MF= 6$, $MT=205$ | |
| SECTION 6/205 NOT IN DIRECTORY | RECORD NUMBER 5659 |

57. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4243$, $MF=6$, $MT=207$ (0): *Directory (b)*
- ERROR(S) FOUND IN $MAT=4243$, $MF=6$, $MT=207$
SECTION 6/207 NOT IN DIRECTORY RECORD NUMBER 5789
58. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4243$, $MF=12$, $MT=102$ (0): *Directory (b)*
- ERROR(S) FOUND IN $MAT=4243$, $MF=12$, $MT=102$
SECTION 12/102 NOT IN DIRECTORY RECORD NUMBER 6320
59. Missing a gamma spectrum for continuum of gammas
 $MAT=4243$, $MF=12$, $MT=102$ (1): *No gamma spectrum*
- ERROR(S) FOUND IN $MAT=4243$, $MF=12$, $MT=102$
CONTINUUM PHOTONS REQUIRE A SECTION IN $MF=15$
60. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4243$, $MF=13$, $MT=3$ (0): *Directory (b)*
- ERROR(S) FOUND IN $MAT=4243$, $MF=13$, $MT=3$
SECTION 13/ 3 NOT IN DIRECTORY RECORD NUMBER 6329
61. Missing a gamma spectrum for continuum of gammas
 $MAT=4243$, $MF=13$, $MT=3$ (1): *No gamma spectrum*
- ERROR(S) FOUND IN $MAT=4243$, $MF=13$, $MT=3$
CONTINUUM PHOTONS REQUIRE A SECTION IN $MF=15$
62. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4243$, $MF=14$, $MT=3$ (0): *Directory (b)*
- ERROR(S) FOUND IN $MAT=4243$, $MF=14$, $MT=3$
SECTION 14/ 3 NOT IN DIRECTORY RECORD NUMBER 6341
63. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4243$, $MF=14$, $MT=102$ (0): *Directory (b)*
- ERROR(S) FOUND IN $MAT=4243$, $MF=14$, $MT=102$
SECTION 14/102 NOT IN DIRECTORY RECORD NUMBER 6343
64. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4243$, $MF=15$, $MT=3$ (0): *Directory (b)*
- ERROR(S) FOUND IN $MAT=4243$, $MF=15$, $MT=3$
SECTION 15/ 3 NOT IN DIRECTORY RECORD NUMBER 6346
65. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4243$, $MF=15$, $MT=102$ (0): *Directory (b)*

ERROR(S) FOUND IN MAT=4243, MF=15, MT=102
SECTION 15/102 NOT IN DIRECTORY RECORD NUMBER 6794

66. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4243, MF=33, MT= 1 (0): Directory (b)

ERROR(S) FOUND IN MAT=4243, MF=33, MT= 1
SECTION 33/ 1 NOT IN DIRECTORY RECORD NUMBER 6923

67. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4243, MF=33, MT= 2 (0): Directory (b)

ERROR(S) FOUND IN MAT=4243, MF=33, MT= 2
SECTION 33/ 2 NOT IN DIRECTORY RECORD NUMBER 7151

68. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4243, MF=33, MT= 4 (0): Directory (b)

ERROR(S) FOUND IN MAT=4243, MF=33, MT= 4
SECTION 33/ 4 NOT IN DIRECTORY RECORD NUMBER 7379

69. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4243, MF=33, MT= 16 (0): Directory (b)

ERROR(S) FOUND IN MAT=4243, MF=33, MT= 16
SECTION 33/ 16 NOT IN DIRECTORY RECORD NUMBER 7483

70. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4243, MF=33, MT=102 (0): Directory (b)

ERROR(S) FOUND IN MAT=4243, MF=33, MT=102
SECTION 33/102 NOT IN DIRECTORY RECORD NUMBER 7505

• psyche Warnings:

1. Non-threshold reaction with Q value differing from PSYCHE's expectations
FILE 3 / SECTION 107 / THE CALCULATED Q 2.97980E+06 DISSAGREES WITH THE GIVEN Q 3.20222E+06 (0): Iffy Q

FILE 3
SECTION 107
THE CALCULATED Q 2.97980E+06 DISSAGREES WITH THE GIVEN Q 3.20222E+06

2. Non-threshold reaction with Q value differing from PSYCHE's expectations
FILE 3 / SECTION 207 / THE CALCULATED Q 2.97980E+06 DISSAGREES WITH THE GIVEN Q 3.20222E+06 (0): Iffy Q

FILE 3
SECTION 207
THE CALCULATED Q 2.97980E+06 DISSAGREES WITH THE GIVEN Q 3.20222E+06

- groupeie Errors:

1. Very small elastic cross section found
0: Small elastic

Multi-Group and Multi-Band Parameters from ENDF/B Data (GROUPEIE 2015-2)

ENDF/B Input and Output Data Filenames

ENDFB.IN

ENDFB.OUT

... [97 more lines]

- fudge-4.0 Warnings:

1. Missing a channel with a particular angular momenta combination
resonances / resolved / MultiLevelBreitWigner (Error # 0): missingResonanceChannel

WARNING: Missing a channel with angular momenta combination L = 0, J = 1.5 and S = 1.5 for "capture"

WARNING: Missing a channel with angular momenta combination L = 1, J = 0.5 and S = 1.5 for "capture"

WARNING: Missing a channel with angular momenta combination L = 1, J = 1.5 and S = 1.5 for "capture"

WARNING: Missing a channel with angular momenta combination L = 1, J = 2.5 and S = 1.5 for "capture"

2. Unnormalized outgoing probability distribution
*reaction label 15: n + Mo98_c / Product: n / Distribution: / energyAngular - XYs3d:
(Error # 0): Bad norm*

WARNING: Unnormalized distribution! At energy_in = 2368150. eV (index 0), integral = 0.5

WARNING: Unnormalized distribution! At energy_in = 2668150. eV (index 1), integral = 0.664468189543

WARNING: Unnormalized distribution! At energy_in = 3.e6 eV (index 2), integral = 0.795595752451

WARNING: Unnormalized distribution! At energy_in = 4.e6 eV (index 3), integral = 0.879684371271

... plus 11 more instances of this message

3. Unnormalized outgoing probability distribution
reaction label 16: n[multiplicity:'2'] + Mo97 / Product: n / Distribution: / energyAngular - XYs3d: (Error # 0): Bad norm

WARNING: Unnormalized distribution! At energy_in = 8731430. eV (index 0), integral = 0.5

WARNING: Unnormalized distribution! At energy_in = 9031430. eV (index 1), integral = 0.664468189543

WARNING: Unnormalized distribution! At energy_in = 1.e7 eV (index 2), integral = 0.830245416221

WARNING: Unnormalized distribution! At energy_in = 1.1e7 eV (index 3), integral = 0.893256194222

... plus 9 more instances of this message

4. Unnormalized outgoing probability distribution
reaction label 17: n[multiplicity:'3'] + Mo96 / Product: n / Distribution: / energyAngular - XYs3d: (Error # 0): Bad norm

WARNING: Unnormalized distribution! At energy_in = 1.56177e7 eV (index 0), integral = 0.5

WARNING: Unnormalized distribution! At energy_in = 1.59177e7 eV (index 1), integral = 0.682118103815

WARNING: Unnormalized distribution! At energy_in = 1.6e7 eV (index 2), integral = 0.682118106829

WARNING: Unnormalized distribution! At energy_in = 1.7e7 eV (index 3), integral = 0.78278619824

... plus 3 more instances of this message

5. Unnormalized outgoing probability distribution
*reaction label 18: n + H1 + Nb97 / Product: n / Distribution: / energyAngular - XYs3d:
(Error # 0): Bad norm*

WARNING: Unnormalized distribution! At energy_in = 9896030. eV (index 0), integral = 0.5
 WARNING: Unnormalized distribution! At energy_in = 1.0196e7 eV (index 1), integral = 0.711205692917
 WARNING: Unnormalized distribution! At energy_in = 1.1e7 eV (index 2), integral = 0.711205706401
 WARNING: Unnormalized distribution! At energy_in = 1.2e7 eV (index 3), integral = 0.69708717148
 ... plus 8 more instances of this message

6. Unnormalized outgoing probability distribution
reaction label 20: n + He4 + Zr94 / Product: n / Distribution: / energyAngular - XYs3d: (Error # 0): Bad norm

WARNING: Unnormalized distribution! At energy_in = 3306460. eV (index 0), integral = 0.5
 WARNING: Unnormalized distribution! At energy_in = 3606460. eV (index 1), integral = 0.722953387817
 WARNING: Unnormalized distribution! At energy_in = 7.e6 eV (index 2), integral = 0.722954227368
 WARNING: Unnormalized distribution! At energy_in = 8.e6 eV (index 3), integral = 0.917625632669
 ... plus 12 more instances of this message

7. For distributions, flat interpolation along incident energy is unphysical!
production label 25: /reactionSuite/reactions/production[@label='25'] / Product: gamma / Distribution: / uncorrelated - energy - XYs2d: (Error # 0): flatIncidentEnergyInterpolation

WARNING: For distributions, flat interpolation along incident energy is unphysical!

8. Cross section does not match sum of linked reaction cross sections
crossSectionSum label 0: total (Error # 0): CS Sum.

WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 0.15%

9. Cross section does not match sum of linked reaction cross sections
crossSectionSum label 1: nonelastic (Error # 0): CS Sum.

WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 0.76%

10. Cross section does not match sum of linked reaction cross sections
crossSectionSum label 2: (z,n) (Error # 0): CS Sum.

WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 1.74%

11. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 0 (total): / Form 'eval': / Component 0 (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

12. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 0 (total): / Form 'eval': / Component 1 (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

13. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 1 (n + Mo98): / Form 'eval': / Component 0 (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

14. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 1 ($n + \text{Mo98}$): / Form 'eval': / Component 1 (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

15. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 2 ((z,n)): / Form 'eval': (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

16. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 3 ($n[\text{multiplicity:}'2'] + \text{Mo97}$): / Form 'eval': (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

17. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 4 ($\text{Mo99} + \text{gamma}$): / Form 'eval': / Component 0 (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

18. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 4 ($\text{Mo99} + \text{gamma}$): / Form 'eval': / Component 1 (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

- fudge-4.0 Errors:

1. Calculated and tabulated Q values disagree.
reaction label 16: $n[\text{multiplicity:}'2'] + \text{Mo97}$ (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -8693074.930374146 eV vs -8642380. eV!

2. Calculated and tabulated Q values disagree.
reaction label 17: $n[\text{multiplicity:}'3'] + \text{Mo96}$ (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -15514338.5267334 eV vs -1.54584e7 eV!

3. Calculated and tabulated Q values disagree.
reaction label 18: $n + \text{H1} + \text{Nb97}$ (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -9845526.19317627 eV vs -9795110. eV!

4. Calculated and tabulated Q values disagree.
reaction label 19: $\text{Mo99} + \text{gamma}$ (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: 5874957.734039307 eV vs 5925590. eV!

5. Calculated and tabulated Q values disagree.
reaction label 20: $n + \text{He4} + \text{Zr94}$ (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -3320278.196380615 eV vs -3272740. eV!

6. Calculated and tabulated Q values disagree.
reaction label 21: H1 + Nb98_s (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -3851306.353347778 eV vs -3802920. eV!

7. Calculated and tabulated Q values disagree.
reaction label 22: H2 + Nb97_s (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -7620960.09223938 eV vs -7.4873e6 eV!

8. Calculated and tabulated Q values disagree.
reaction label 23: H3 + Nb96_s (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -9436992.335128784 eV vs -9381850. eV!

9. Calculated and tabulated Q values disagree.
reaction label 24: He4 + Zr95_s (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: 3141968.96434021 eV vs 3202220. eV!

- njoy2012 Warnings:

1. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (0): HEATR/hinit (4)

---message from hinit---mf6, mt 16 does not give recoil za= 42097
one-particle recoil approx. used.

2. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (1): HEATR/hinit (4)

---message from hinit---mf6, mt 17 does not give recoil za= 42096
one-particle recoil approx. used.

3. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (2): HEATR/hinit (4)

---message from hinit---mf6, mt 22 does not give recoil za= 42098
one-particle recoil approx. used.

4. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (3): HEATR/hinit (4)

---message from hinit---mf6, mt 28 does not give recoil za= 42098
one-particle recoil approx. used.

5. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (4): HEATR/hinit (4)

---message from hinit---mf6, mt 91 does not give recoil za= 42098
one-particle recoil approx. used.

6. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (5): HEATR/hinit (4)

---message from hinit---mf6, mt203 does not give recoil za= 41098
one-particle recoil approx. used.

7. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (6): HEATR/hinit (4)

---message from hinit---mf6, mt204 does not give recoil za= 41097
one-particle recoil approx. used.

8. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (7): HEATR/hinit (4)

---message from hinit---mf6, mt205 does not give recoil za= 41096
one-particle recoil approx. used.

9. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (8): HEATR/hinit (4)

---message from hinit---mf6, mt207 does not give recoil za= 40095
one-particle recoil approx. used.